

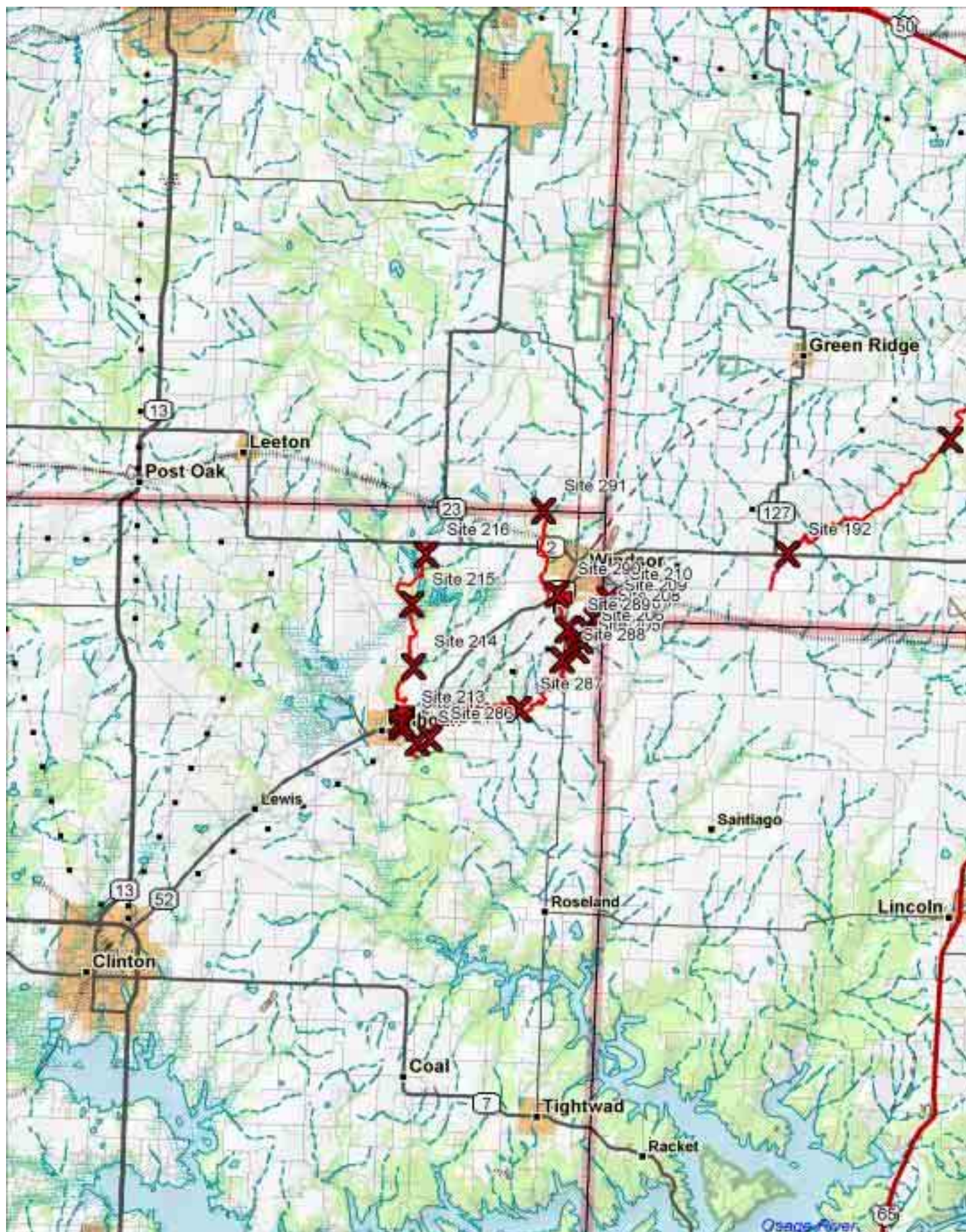
Use Attainability Analysis

for

WBID 1282 East Fork Tebo Creek

Submitted by
Tetra Tech, Inc

To
Missouri Department of Natural Resources
Water Protection Program



Field Data Sheets for Recreational Use Stream Surveys

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Data Sheet A - Water Body Identification

2005 MAY 23 PM 2: 58

WATER PROTECTION PROGRAM

Water Body Name: (from USGS 7.5' quad)	EAST FORK TEBB CREEK (286-291)
8-digit HUC:	10290108
Missouri WBID #:	1282
County:	HENRY COUNTY
Upstream Legal Description:	
Downstream Legal Description:	
Upstream Coordinates: (UGS 84, ddd.ddddd)	N 38.54242 W 093.54453
Downstream Coordinates: (UGS 84, ddd.ddddd)	N 38.46414 W 093.60289
Discharger Facility Name(s):	WINDSOR SW LAGOON
Discharger Permit Number(s):	
Number of Sites Evaluated:	6
Name of Surveyor and Telephone Number:	CHAD BANBOUR, 410-356-8993
Organization:	TETRA TECH INC.
Position:	ASSOCIATE SCIENTIST

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Chad Banbour Date: 04/20/05

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Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

WATER PROTECTION PROGRAM

Missouri WBID #: 286	Site Location Description: R+00 @ overpass	
Site GPS Coordinates: N 38.46414 W 093.60289		
Date & Time: 4-20-2005 402 PM	Facility Name: Winsor SW Lagoon	
Personnel: CB, ELY	Permit Number:	
Current Weather Conditions: Overcast 75°	Weather Conditions for Past 7 days:	
Photo Ids: Upstream: A7A 023	Downstream: T48A 024	Other:

Uses Observed*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)				

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

Evidence of Human Use*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Stream Morphology:

Upstream View Physical Dimensions: in m. 0.05, 0.10, 0.25, 0.36, 0.10

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>4.0 m</u>	Length (ft): <u>20 m</u>	Avg. Depth (ft): <u>0.172 m</u>	Max. Depth (ft): <u>0.36 m</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3 m	Estimated (ft ³ /sec): <u>8.65 / 3 m = 0.35 m/s</u>	

Downstream View Physical Dimensions: in m. 0.25, 0.64, 0.80, 0.88, 0.108

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>10.3 m</u>	Length (ft): <u>20 m</u>	Avg. Depth (ft): <u>0.65 m</u>	Max. Depth (ft): <u>0.88 m</u>
<input checked="" type="checkbox"/> Flow	Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Estimated (ft ³ /sec):	

Substrate*: (These values should add up to 100%.)

<u>60</u> % Cobble	<u>15</u> % Gravel	<u>0</u> % Sand	<u>15</u> % Silt	<u>10</u> % Mud/Clay	<u>0</u> % Bedrock
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Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

<u>Algae</u>

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input checked="" type="checkbox"/> Green	<input type="checkbox"/> Gray	<input checked="" type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

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Signed: [Signature] Date: 04/20/05

Organization: TETRA TECH INC. Position: ASSOCIATE SCIENTIST

ELG 4-20-2005



Field Data Sheets for Recreational Use Stream Surveys

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Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site) WATER PROTECTION PROGRAM

ACCESS

Missouri WBID #: 287	Site Location Description: CR NE 1071 overpass
Site GPS Coordinates: N 38.41612 W 093.55580	
Date & Time: 4-20-05 346pm	Facility Name: Winsor SW Lagoon
Personnel: CB, ELY	Permit Number:
Current Weather Conditions: overcast 75°	Weather Conditions for Past 7 days: Clear Warm
Photo Ids: Upstream: 745A 021 Downstream: 745A 022 Other:	

Uses Observed*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input checked="" type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

Evidence of Human Use*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

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Stream Morphology:

Upstream View Physical Dimensions: in m: 0.05, 0.06, 0.18, 0.14, 0.04

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>5.8m</u>	Length (ft): <u>20 ft</u>	Avg. Depth (ft): <u>0.094m</u>	Max. Depth (ft): <u>0.18m</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft/sec): <u>3m / 7.3 sec</u>	<u>= 0.41 m/s</u>

Downstream View Physical Dimensions: in m: 0.1, 0.20, 0.48, 0.58, 0.46, 0.48

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>8.1m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.46m</u>	Max. Depth (ft): <u>0.58m</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft/sec): <u>3m / 10.3s</u>	<u>= 0.29 m/s</u>

Substrate*: (These values should add up to 100%.)

<u>15</u> % Cobble	<u>45</u> % Gravel	<u>20</u> % Sand	<u>10</u> % Silt	<u>10</u> % Mud/Clay	<u>0</u> % Bedrock
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Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

<u>algae</u>

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input checked="" type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input checked="" type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

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I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [Signature] Date: 04/20/05

Organization: TEMA Tech Inc. Position: ASSOCIATE SCIENTIST

Ely 4-20-05



Field Data Sheets for Recreational Use Stream Surveys

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Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site) WATER PROTECTION PROGRAM

Missouri WBID #: 288	Site Location Description: RT Y ELY 4-20-2005 pull off	
Site GPS Coordinates: N38.49699 W093.53374		
Date & Time: 4-20-2004 325 PM	Facility Name: Winsor SW Lagoon	
Personnel: CB, ELY	Permit Number:	
Current Weather Conditions: Overcast 75°	Weather Conditions for Past 7 days: Clear Warm	
Photo Ids: Upstream: 1743A 019	Downstream: 1744A 020	Other:

Uses Observed*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

Evidence of Human Use*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input checked="" type="checkbox"/> Other: There is a road pull off at the site.				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

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Stream Morphology:

Upstream View Physical Dimensions: in m: .45, 1.08, 1.04, 0.60, 0.28

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>12.5 m</u>	Length (ft): <u>20 m</u>	Avg. Depth (ft): <u>0.69 m</u>	Max. Depth (ft): <u>1.08 m</u>
<input checked="" type="checkbox"/> Flow Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Estimated (ft ³ /sec):	

Downstream View Physical Dimensions: in m: 0.90, 1.20, 1.15, 0.90, 0.26

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>11.3 m</u>	Length (ft): <u>20 m</u>	Avg. Depth (ft): <u>0.882 m</u>	Max. Depth (ft): <u>1.20 m</u>
<input checked="" type="checkbox"/> Flow Present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Estimated (ft ³ /sec):	

Substrate*: (These values should add up to 100%.)

<u>20</u> % Cobble	<u>0</u> % Gravel	<u>0</u> % Sand	<u>0</u> % Silt	<u>10</u> % Mud/Clay	<u>70</u> % Bedrock
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Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

<u>Algae</u>

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input checked="" type="checkbox"/> Green	<input type="checkbox"/> Gray	<input checked="" type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input checked="" type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

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Signed: [Signature] Date: 04/20/05

Organization: T&TMA Tech Inc. Position: ASSOCIATE SCIENTIST

Ely 4-20-05



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Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

WATER PROTECTION PROGRAM

ACC 16.5 ft

Missouri WBID #: 289	Site Location Description: R+Y overpass	
Site GPS Coordinates: N 38.50832 W 093.53136		
Date & Time: 4-20-05 3:00 PM	Facility Name: Winsor SW Lagoon	
Personnel: CB, ELY	Permit Number:	
Current Weather Conditions: Overcast 75°	Weather Conditions for Past 7 days: Clear, Warm	
Photo Ids: Upstream: T742A 016	Downstream: T742A 017	Other:

Uses Observed*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input checked="" type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

Evidence of Human Use*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

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Stream Morphology:

Upstream View Physical Dimensions: in m: 0.18, 0.20, 0.28, 0.38, 0.50, 0.40

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>9.3 m</u>	Length (ft): <u>20.4 m</u>	Avg. Depth (ft): <u>0.388 m</u>	Max. Depth (ft): <u>0.50 m</u>
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec):	

Downstream View Physical Dimensions: in m: 15, 35, 40, 20, 0.08

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>4.4 m</u>	Length (ft): <u>20 m</u>	Avg. Depth (ft): <u>0.248 m</u>	Max. Depth (ft): <u>0.40 m</u>
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec):	

Substrate*: (These values should add up to 100%.)

<u>10</u> % Cobble	<u>0</u> % Gravel	<u>60</u> % Sand	<u>15</u> % Silt	<u>15</u> % Mud/Clay	<u>0</u> % Bedrock
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Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

<u>A large amount of algae throughout, seems to be heavily influenced by nutrients from agriculture</u>

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input checked="" type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input checked="" type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

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Signed: [Signature] Date: 04/20/05

Organization: TETRA TECH Inc. Position: ASSOCIATE SCIENTIST

ELY 4-20-2005



Field Data Sheets for Recreational Use Stream Surveys

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Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

WATER PROTECTION PROGRAM

ACC 14.9
fb.

Missouri WBID #: 290	Site Location Description: Rt 52 overpass	
Site GPS Coordinates: N 38.52275 W 093.53638		
Date & Time: 4-20-2005 245 PM	Facility Name: Windsor SW Lagoon	
Personnel: CB, ELY	Permit Number:	
Current Weather Conditions: drizzle, 75°	Weather Conditions for Past 7 days: Clear, Warm	
Photo Ids: Upstream: 1739A 016 cb	Downstream: 1740A 016 cb	Other:

Uses Observed*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)
 Located next to a livestock auction, seems to be heavily influenced by nutrients.

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input checked="" type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

Evidence of Human Use*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

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Stream Morphology:

Upstream View Physical Dimensions: in m: .08, .20, .28, .32, .26

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>6.9 m</u>	Length (ft): <u>20 m</u>	Avg. Depth (ft): <u>0.228 m</u>	Max. Depth (ft): <u>.32 m</u>
<input checked="" type="checkbox"/> Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec):		

Downstream View Physical Dimensions: in m: 0.08, .24, .35, .35, .32, .28

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>8.2 m</u>	Length (ft): <u>20 m</u>	Avg. Depth (ft): <u>0.324 m</u>	Max. Depth (ft): <u>.35 m</u>
<input checked="" type="checkbox"/> Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec):		

Substrate*: (These values should add up to 100%.)

<u>30</u> % Cobble	<u>0</u> % Gravel	<u>0</u> % Sand	<u>5</u> % Silt	<u>5</u> % Mud/Clay	<u>60</u> % Bedrock
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Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

<u>A large amount of algae</u>

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input checked="" type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input checked="" type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Chen Date: 04/20/05

Organization: Tetra Tech Inc Position: Associate Scientist

24 4 - 20 - 05



Field Data Sheets for Recreational Use Stream Surveys

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Data Sheet B - Site Characterization

2005 MAY 23 PM 2: 58

(A separate data sheet must be completed for each site) WATER PROTECTION PROGRAM

Missouri WBID #: 290 Revisit	Site Location Description:	
Site GPS Coordinates: N 38.53291 W 093.53666	R+52 overpass	
Date & Time: 4-21-2005 9:38 AM	Facility Name: Windsor SW Lagoon	
Personnel: CB, ELY	Permit Number:	
Current Weather Conditions: Cloudy 68°	Weather Conditions for Past 7 days:	
Photo Ids: Upstream: 1755A 031	Downstream: 1756A 032	Other:

Uses Observed*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

There is a livestock auction on the downstream portion of the reach

Surrounding Conditions*:

(Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input checked="" type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

Evidence of Human Use*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Stream Morphology:

Upstream View Physical Dimensions: in meters: 0.18, 0.30, 0.30, 0.22, 0.16

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>7.1m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.232m</u>	Max. Depth (ft): <u>0.30m</u>
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec):	

Downstream View Physical Dimensions: in meters: 0.10, 0.14, 0.28, 0.34, 0.26

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>8.1m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.37m</u>	Max. Depth (ft): <u>0.34m</u>
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec):	

Substrate*: (These values should add up to 100%.)

<u>3</u> % Cobble	<u>0</u> % Gravel	<u>0</u> % Sand	<u>10</u> % Silt	<u>7</u> % Mud/Clay	<u>80</u> % Bedrock
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Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

<u>Algae throughout reach</u>

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input checked="" type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Ch E. [Signature] Date: 04/21/05

Organization: Tetra Tech Inc. Position: Associate Scientist

Ely 4-21-2005



#2

Date: 21 Apr 05 Site identifier: 290
E. FK, REBO CR

Page 1 of 3

Field Audit Checklist

Field work for Use Attainability Analysis for Contact Recreational Beneficial Use in Missouri

Overview

This checklist documents observations by an auditor (not from the State of Missouri) for field work performed according to "Recreational Use Attainability Analysis Protocol", Missouri Department of Natural Resources, Water Protection Program, November 3, 2004, and, "Field Data for Use Attainability Analysis (UAA)s for Contact Recreation Beneficial Use in Missouri", Tetra Tech, March 8, 2005. The purpose of the audit is to document the extent to which the field team follow the procedures in the protocol and the QAPP. The auditor does not perform simultaneous activities specified in the protocol and the QAPP for the purpose of comparing results obtained by the auditor and the field team. The field work is conducted here under Contract No. EP-C-04-030, Work Assignment No. B-15.

Procedure

The auditor arranges with the field workers to meet and accompany the field team for one or more site visits. When the auditor first meets the field team on the day of the field audit, the auditor provides the field team with a copy of this checklist. The auditor accompanies the field team to one or more site visits scheduled for the day. At each site, the auditor observes the work of the field team, and marks this checklist as events are observed. A new checklist is completed for each different site visited and audited. At the end of each site visit, both the field team and the auditor sign and date this checklist, attesting that this audit was performed as represented by this checklist and the markings thereon. After the day's work is complete, the auditor provides xerox copies of the completed checklists to a designated representative of the field team, and sends the original completed checklists to the State of Missouri.

Checklist

Date:

Time of arrival at site:

Identifier of site:

Date: 21 Nov 05 Site identifier: 290

Page 2 of 3

1. (Protocol pg. 16) Does the field team have a 7.5 minute USGS topographic quadrangle map for the location of this site? *yes DeLone*
2. (Protocol pg. 16) Does the field team measure and record location of the site using a GPS unit? *yes*
3. (Protocol pg. 16) Are the GPS location data recorded in UTM, NAD 83? *yes minute road*
4. (Protocol pg. 16) Are the start and end points (upstream and downstream coordinates) recorded on Data Sheet A? *yes*
5. (Protocol pg. 16) Are the narrative site assessments recorded on the forms provided in the protocol? *yes*
6. (Protocol pg. 16) Is information for this site recorded on a new form? *yes*
7. (protocol pg. 16) Is a photographic record made of this site? *yes*
8. (Protocol pg. 16) Do the photographs include an upstream view and a downstream view? *yes*
9. (Protocol pg. 16) If the team discovers evidence of observed or potential use, is a photograph taken documenting the evidence? *NA*
10. (Protocol pg. 16) Are the photographs catalogued in the field notes in a manner that indicates site location? *yes*
date? *yes*
view orientation? *yes*
what is being shown? *yes*
11. (Protocol pg. 16) If people are present, does the field team interview the people? *NA*
12. (Protocol pg 16) If an interview occurs, does the field team obtain and record in the field notes
history of the water body? *NA*
legal name of person interviewed?
address of person interviewed?
13. (Protocol) At the end of the site observation, is Data Sheet A (one sheet) completed and signed? *yes*
14. (Protocol) At the end of the site observation, is Data Sheet B (two sheets) completed and signed? *yes*
15. (QAPP pg 13) Does the field team have a list of equipment and expendable supplies? *yes*

Date: 21 Apr 05 Site identifier: 290

Page 3 of 3

16. (QAPP pg 13) Does the field team have backup equipment? *no*
17. (QAPP pg 13) Have any battery-powered equipment been fully charged? *yes*
18. (QAPP pg 14) If the field team notices any deviations from the planned survey, does the field team record the deviations on the field forms? *NA*
19. (QAPP pg 14) Are all entries made in ink with no erasures? *yes*
20. (QAPP pg 14) Are any incorrect entries crossed out with a single strike mark, initialed and dated? *NA*
21. (QAPP pg 14) Are all field data sheets filled out completely? *yes*
22. (QAPP pg 14-15) Are the completed field sheets signed? *yes*
23. (QAPP pg 15) Is this a replicate visit (for precision of field measurements)? *yes*
24. (QAPP pg 15) If evidence of recreation use is obvious, do the Field Team Leader and the Field QC Officer agree? *NA*
25. (QAPP pg 18) Does the field team have documentation or other evidence that the measurement equipment is in working order? *yes*
26. (QAPP pg 19) Does the field team have documentation or other evidence that the GPS unit has been checked for accuracy? *no*

Signatures

We, the undersigned, hereby affirm, to the best of our knowledge, that this audit occurred and that the marking on this checklist accurately represent the audit results.

Auditor:

Don P Miller 21 Apr 05

Field Team member 1:

Chad Miller 4/21/05

Field Team member 2:

Elyse L. Jacobson 4-21-05

Field Team member 3:

Field Team member 4:

Field Data Sheets for Recreational Use Stream Surveys

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2005 MAY 23 PM 2: 58

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each ~~site~~ PROTECTION PROGRAM)

ACC 34.2
Fb.

Missouri WBID #: 291		Site Location Description: Rt 2 overpass	
Site GPS Coordinates: N 38.54242 W 093.54453			
Date & Time: 4-20-05 2:04 PM		Facility Name: Windsor SW Lagoon	
Personnel: CB, ELY		Permit Number:	
Current Weather Conditions: Light Drizzle, 76°		Weather Conditions for Past 7 days: Clear Warm	
Photo Ids: Upstream: 1737A 013 c60	Downstream: 1738A 014 c65	Other:	

Uses Observed*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)
Stream reach is w/in cow pasture, cows in stream

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input checked="" type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

Evidence of Human Use*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input checked="" type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

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Stream Morphology:

Upstream View Physical Dimensions: in m: 0.5, 1.1, 0.9, 1.0, 0.8 ^{EX 4-20-05}

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>6.2m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.176m</u>	Max. Depth (ft): <u>0.3m</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft ³ /sec): <u>3m = 26s</u> <u>= 0.12 m/s</u>	

Downstream View Physical Dimensions: in m: 0.15, 0.25, 0.32, 0.36, 0.16

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>5.4m</u>	Length (ft): <u>20m</u>	Avg. Depth (ft): <u>0.248m</u>	Max. Depth (ft): <u>0.36m</u>
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec):	

Substrate*: (These values should add up to 100%.)

<u>10</u> % Cobble	<u>0</u> % Gravel	<u>0</u> % Sand	<u>35</u> % Silt	<u>35</u> % Mud/Clay	<u>20</u> % Bedrock
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Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

<u>None</u>

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input checked="" type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

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I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [Signature] Date: 04/20/05

Organization: TETRA TECH INC. Position: ASSOCIATE SCIENTIST

ELG 4-20-2005



Field Data Sheets for Recreational Use Stream Surveys

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2005 MAY 23 PM 2: 58

WATER PROTECTION PROGRAM

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

Missouri WBID #: 291 Revisi	Site Location Description:	
Site GPS Coordinates: N38.54240 W093.54462	R+2 overpass	
Date & Time: 4-21-05 6:45 PM	Facility Name: Windsor SW Lagoon	
Personnel: CB, ELY	Permit Number:	
Current Weather Conditions: Cloudy 72°	Weather Conditions for Past 7 days:	
Photo Ids: Upstream: 1780A 056	Downstream: 1781A 057	Other:

Uses Observed*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input checked="" type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

Evidence of Human Use*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Stream Morphology:

Upstream View Physical Dimensions: in meter: 0.22, 0.30, 0.38, 0.42, 0.20

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>6.5 m</u>	Length (ft): <u>20 m</u>	Avg. Depth (ft): <u>0.304 m</u>	Max. Depth (ft): <u>0.42 m</u>
<input checked="" type="checkbox"/> Flow Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec):		

Downstream View Physical Dimensions: in meter: 0.10, 0.20, 0.20, 0.22, 0.18

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>3.8 m</u>	Length (ft): <u>20 m</u>	Avg. Depth (ft): <u>0.18 m</u>	Max. Depth (ft): <u>0.22 m</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Flow Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft ³ /sec): <u>3 m / 4.66 s = 0.64 m/s</u>		

Substrate*: (These values should add up to 100%.)

<u>30</u> % Cobble	<u>10</u> % Gravel	<u>0</u> % Sand	<u>25</u> % Silt	<u>35</u> % Mud/Clay	<u>0</u> % Bedrock
--------------------	--------------------	-----------------	------------------	----------------------	--------------------

Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

<u>Algae</u>

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input checked="" type="checkbox"/> Milky	<input checked="" type="checkbox"/> Other: <u>Brown</u>
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input checked="" type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input checked="" type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

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I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Chloe M Date: 04/21/05

Organization: Tetra Tech Inc. Position: Associate Scientist

Ely 4-21-05

